

UNIVERSITY OF SWAZILND

FACULTY OF HEALTH SCIENCES

FINAL EXAMINATION PAPER, MAY 2007

TITLE OF PAPER: NURSING SCIENCE AND ARTS II

COURSE CODE: NUR 302

TIME ALLOWED: THREE (3) HOURS

MARKS: 100

INSTRUCTIONS:

- 1. THERE ARE FOUR (4) QUESTIONS IN THIS PAPER**
- 2. ANSWER ALL FOUR QUESTIONS**
- 3. EACH QUESTION IS ALLOCATED 25 MARKS**
- 4. EACH CORRECT STATEMENT OR FACT WITH RATIONALE
CARRIES ONE (1) MARK**
- 5. WRITE LEGIBLE**

**THIS QUESTION PAPER SHOULD NOT BE OPENED UNTIL PERMISSION
HAS BEEN GRANTED BY THE INVIGILATOR**

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QUESTION 1

**READ EACH QUESTION CAREFULLY AND CHOOSE THE BEST RESPONSE.
IN YOUR ANSWER BOOK WRITE THE LETTER THAT CORRESPONDS TO
THE MOST CORRECT ANSWER e.g. 1. 6**

Situation: Mr. H who is aged 52 is suspected to be suffering from diabetes, and has been scheduled for an oral glucose tolerance test [OGTT].

Question 1 – 3 relate to the above situation.

1. The OGTT requires that the patient's blood and urine be collected at:
 - A. 30 minutes, 1 hour, 2 hours, and 3 hours after ingesting glucose.
 - B. 15 minutes, 45 minutes, 2 hours, and 3 hours after ingesting glucose.
 - C. 1 hour, 2 hours, 3 hours, and 4 hours after ingesting glucose.
 - D. 1 hour 30 minutes, 2 hours, 3 hours, and 4 hours after ingesting glucose.

2. Mr. H who is being prepared for an OGTT
 - A. is kept nothing per os [NPO] for 12 hours before the test, except for glucose
 - B. is kept NPO for 12 hours before the test, except for water
 - C. is NPO for 7 hours before the test, except for water
 - D. has no oral food or fluid restrictions

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3. An OGTT is done to:

- A. confirm the medical diagnosis, diabetes insipidus
- B. confirm the medical diagnosis, diabetes mellitus
- C. suspect the medical diagnosis, diabetes insipidus
- D. suspect the medical diagnosis, diabetes mellitus

4. **Milking the finger is avoided** when obtaining a drop of blood to determine the blood glucose level. Milking the finger is avoided because it could:

- A. cause false-high blood glucose results
- B. cause false-low blood glucose results
- C. interfere with the blood glucose results
- D. cause more pain to the patient

5. Prehepatic differs from posthepatic jaundice in that prehepatic jaundice is due to:

- A. defective bilirubin uptake by the liver
- B. impaired bilirubin excretion by the biliary system
- C. excessive red blood cell destruction
- D. defective bilirubin transport in the biliary system

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Situation: Mr. Y who is aged 27 is addicted to intravenous mandrax. He complains of diarrhea, vomiting, and yellowish sclera. These symptoms are suggestive of hepatitis.

Questions 6 – 9 relate to the above situation

6. Hepatitis A is transmitted from one person to another by

- a. contact with saliva
- b. the fecal-oral route
- c. contact with semen
- d. contact with blood

7. The incubation period of hepatitis B ranges between:

- A. 45 – 180 days
- B. 2 weeks to 6 months
- C. 15 – 50 days
- D. 2 – 10 weeks

8. One of the most likely complications of hepatitis is:

- A. hydrocephalus
- B. muscle weakness
- C. meningitis
- D. hepatic coma

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9. The risk of impaired skin integrity in a patient suffering from hepatitis could be reduced by:

- A. restricting visitors with infections, especially upper respiratory tract infection
- B. encouraging the patient to maintain short nails
- C. monitoring blood glucose levels
- D. teaching the patient to perform deep breathing exercises every 2 hours

Situation: Ms A is 49 years old and is admitted to the surgical ward after sustaining burns on the anterior chest and both arms.

Questions 10 – 14 relate to the above situation.

10. What percentage of Ms A's body surface was burnt?

- A. 18%
- B. 27%
- C. 36%
- D. 45%

11. The Nursing intervention for impaired gas exchange in Ms A includes:

- A. administering oxygen therapy to reduce the hypoxic state
- B. obtaining the patient's weight
- C. monitoring the patient's mental acuity
- D. provide bathing and oral care as needed

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12. In which depth of burn will the patient experience severe pain?

- A. first-degree
- B. second-degree
- C. third-degree
- D. fourth-degree

13. How does a first-degree burn wound appear?

- A. mottled red base
- B. reddened
- C. weeping surface
- D. leathery

14. What is the most leading cause of death in fire victims?

- A. inhalation
- B. loss of skin barrier
- C. increased capillary permeability
- D. increased blood viscosity

15. Risk factors associated with cerebro-vascular accident include:

- A. hypertension
- B. advanced age
- C. preexisting heart disease
- D. all of the above

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16. Nursing observation after a thoracentesis would include the assessment for:

- A. tachycardia
- B. blood-tinged mucus
- C. signs of hypoxemia
- D. all of the above

Situation: Ms Z who is 45 years old is suspected to be suffering from hyperthyroidism.

She is scheduled for a series of thyroid gland diagnostic tests.

Questions 17 – 21 relate to the above situation.

17. Thyroxine (T_4) serum is used for the diagnosis of which condition?

- A. hyperthyroidism only
- B. hypothyroidism only
- C. both hyperthyroidism and hypothyroidism

18. Triiodothyronine (T_3) serum is commonly used for the diagnosis of which condition?

- A. hyperthyroidism only
- B. hypothyroidism only
- C. both hyperthyroidism and hypothyroidism

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19. A patient who has being prepared for the thyroxine (T_4) serum diagnostic test:
- A. is kept nothing per os [NPO] for 12 hours before the test, except for glucose
 - B. is kept NPO for 12 hours before the test, except for water
 - C. is NPO for 7 hours before the test, except for water
 - D. has no oral food or fluid restrictions
20. Ms Z who is undergoing the radioactive iodine (RAI) diagnostic test. She has to have her blood samples collected at:
- A. 2, 6, and 24 hours after taking the iodine preparation
 - B. 1, 3, and 12 hours after taking the iodine preparation
 - C. 2, 4, and 12 hours after taking the iodine preparation
 - D. 30 minutes, 1 hour, and 3 hours after taking the iodine preparation
21. The primary reason for withholding food after surgery is to prevent;
- A. infection
 - B. obstruction
 - C. paralytic ileus
22. Which are the major routes for HIV transmission?
- A. receiving blood, sexual intercourse, kissing
 - B. sexual intercourse, sharing needles, trans-placental
 - C. mosquitoes, hot tubs, dirty toilets
 - D. food, air, kissing

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23. What is the important determinant in the progression of HIV?
- A. weight loss
 - B. fever /chills
 - C. night sweats
 - D. CD4 counts
24. What causes AIDS?
- A. AIDS is caused by *cryptococcus*, an infectious agent that is usually not a problem except when the body's immune system is unable to fight infections.
 - B. AIDS is caused by cytomegalovirus, a virus to which most people have been exposed
 - C. AIDS is caused by the human immune virus, the virus that attacks the cell-mediated immune system
 - D. AIDS is caused by the common herpes virus, the same virus that causes cold sores
25. Cholelithiasis refers to:
- A. an acute inflammation of the gallbladder
 - B. presence of stones in the gallbladder
 - C. presence of stones in the common bile duct
 - D. acute inflammation of the cystic duct

[25 MARKS]

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QUESTION 2

Situation: Mrs. Madlala who is aged 36 is suffering from non-insulin- dependent diabetes mellitus. She is on oral hypoglycemic, sulfonylureas.

A. Discuss the health education you could to her on:

- (i) foot care (5)
- (ii) oral hypoglycemics (4)
- (iii) urinary and genital care (5)

B. What is the pathophysiology behind the following clinical manifestation of diabetes mellitus?

- (i) Polydipsia (2)
- (ii) Polyphagia (2)
- (iii) Polyuria (2)
- (iv) Weight loss (3)
- (v) Elevated blood glucose (2)

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Question 3

Situation: Ms Ngozi is 45 years old and reports that she has been experiencing irritability, extreme agitation, ravenous appetite, weight loss, and hand tremor at rest, for the past three months. A comprehensive physical examination and diagnostic tests are conducted on her. Finally, a conclusive diagnosis of hyperthyroidism is made.

A. Discuss the nursing intervention of Ms Ngozi focusing on the following nurse's diagnosis:

- (i) sleep pattern disturbance related to increased metabolic rate (5)
- (ii) impaired corneal tissue integrity (5)
- (iii) altered nutrition, less than body requirements (5)

B. Compare and contrast hyperthyroidism with hypothyroidism, considering the following:

- (i) activity tolerance (3)
- (ii) skin integrity (3)
- (iii) thermoregulation (4)

[25 MARKS]

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Question 4

A. Describe the nursing management of Ms Dlomo (39 year old) who has been done a radical mastectomy, on the following areas of concern:

- (i) potential for lymphedema of affected arm and hand (6)
- (ii) potential for infection related to surgical procedure (9)

Situation: Mrs. Masala is aged 52, he has been experiencing unexplained weight loss, recurrent candidiasis, and night sweats. A comprehensive health examination is done on her and she is diagnosed with acquired immunity deficiency syndrome (AIDS).

B. How would you manage Mrs. Masala considering the following diagnosis?

- (i) Social isolation related to social stigma of AIDS and fear of infecting others. (5)
- (ii) Diarrhea related to infectious process (5)

[25 MARKS]

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